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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,652	01/23/2001	Glenn Ferguson	033048-036	4298

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EXAMINER

FERRIS III, FRED O

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,652

Applicant(s)

FERGUSON ET AL.

Examiner

Fred Ferris

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 6 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 2-3, 5, 7, and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. *Claims 1-11 have been presented for reconsideration based on applicant's arguments filed on 22 December 2004. Claims 1, 4, 6, and 9-11 remain rejected by the examiner. Claims 2-3, 5, 7, and 8 are objected to. (Please see allowable subject matter below.)*

Response to Arguments

2. *Applicant's request for reconsideration filed 22 December 2004 has been fully considered.*

Regarding applicants response to 103(a) rejections: The thrust of applicants arguments focus on arguing that the prior art does not appear to teach a "data model that provides relationships of various entities that constitute a command queue" as claimed by the present invention. The examiner notes that applicant's invention is disclosed to be a data model for supporting of various services such as those provided by a web hosting system. (specification page 4, lines 20-22) These services include various types of entities such as government agencies, schools, and commercial enterprises employing web sites to disseminate information on products and services, and to conduct commercial transactions such as the buying and selling of goods (page 1, lines 13-18). The relationship of these various services are defined by a "relationship model" as disclosed in applicant's specification (page 9, line 23-27, Fig. 2). Hence, applicant's argument that the teachings of Bowman-Amuah are somehow not relevant to the claimed limitations because they are drawn to business capabilities in an e-

commerce environment, is non-persuasive since applicants have clearly disclosed entities relating to web-based commercial transactions (i.e. e-commerce). The examiner therefore asserts that Bowman-Amuah clearly meets the broad requirement of this limitation by teaching "various types of entities" and their "relationships" as noted below above and below under 103(a) rejections. Further, Bowman-Amuah at least at column 16, lines 49-67, and column 17 lines 1-45, teaches various web-based models for relationships between network elements and teaches an entity as a network resource (column 40, line 26) as does the claimed invention. Against this backdrop, the examiner has interpreted the broad limitations relating to the data model that provides relationships of various entities as equivalent to the teachings of Bowman-Amuah.

MPEP 2111 [R-1] recites the following supporting rational for this interpretation:

"2111 [R-1] Claim Interpretation; Broadest Reasonable Interpretation
CLAIMS MUST BE GIVEN THEIR BROADEST REASONABLE INTERPRETATION

During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969) (Claim 9 was directed to a process of analyzing data generated by mass spectrographic analysis of a gas. The process comprised selecting the data to be analyzed by subjecting the data to a mathematical manipulation. The examiner made rejections under 35 U.S.C. 101 and 102. In the 35 U.S.C. 102 rejection, the examiner explained that the claim was anticipated by a mental process augmented by pencil and paper markings. The court agreed that the claim was not limited to using a machine to carry out the process since the claim did not explicitly set forth the machine. The court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from reading limitations of the specification into a claim, to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.). See also In re Morris, 127 F.3d 1048, 1054-55,

44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (The court held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification.")"

Further, the Oracle reference clearly teaches intelligent agents performing commanded network tasks inclusive of agent queuing. Hence, a skilled artisan having access to the teachings of Bowman-Amuah and Oracle, would have knowingly implemented the command queue of the present invention using the reasoning set forth below under 103(a) rejections.

The Examiner therefore submits that, in view of the language of the claims, the guidance provided in applicant's specification, and the claim interpretation set forth below, the claimed limitations are clearly obvious in view of Bowman-Amuah and Oracle as recited below under 35 USC 103(a) rejection. The examiner therefore maintains the 103(a) rejection of claims 1, 4, 6, and 9-11. Arguments relating to dependent claims 2-3, 5, 7, and 8 are persuasive. Hence, these dependent claims now stand objected to. (Please see allowable subject matter below.)

Oath/Declaration

3. The examiner acknowledges applicants indication of the present inventions status as a divisional application of application 09/699,353 submitted 23 January 2001.

Claim Interpretation

4. *The claimed invention is disclosed to be a data model for modeling/storing computer network information relating to software, configuration information, monitoring information, hardware-information, (DNS) information, network information, and information regarding queues in accessing/maintaining a network. The claimed invention makes use of popular techniques commonly used in the art such as intelligent agents and "role based access control" (RBAC) where access (permission) to information and system resources is based on a users need to execute in the system and requires identification of "roles" in the system.*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. ***Claims 1, 4, 6, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,345,239 issued to Bowman-Amuah in view of "Oracle Intelligent Agent User's Guide", Oracle Corporation, Release 8.1.7, PN A85251-01, September 2000.***

Independent claims 1, 4, and 6 include limitations drawn to:

Queue data model for intelligent agents performing network tasks from command list:

- *queue entities representing list of tasks to be preformed by agents*
- *queue commands relating queues entities with agent commands/outputs*
- *command output entities representing agent output commands*
- *command entities representing commands to be executed by agents*

Regarding independent claims 1, 4, and 6: Bowman-Amuah discloses a **network data model for relating network objects** (e-commerce business capabilities) where **entities** (customer accounts entities in the network) are organized as **customer tiers** including **application support** (layers) and consisting of **customer sites** (data centers and devices) that are connected via a VLAN allowing customer **components** (via IP addresses) **network access** to various levels of **support** and **software revisions**.

(Abstract, Summary of Invention, Figs. 1a-h, 2a&b, 8a&b, 18, 24, 25, 52-57, 71, 73, 74, 80, CL16-L19-43, CL51-L34-45, C59-L8-55, CL115-L11-30, CL121-L1-30)

For example, Bowman-Amuah discloses the elements of the limitations of the claimed invention as follows:

- Queue data model for intelligent agents performing network tasks from command list:

Bowman-Amuah discloses a network data model relating network data objects as entities. (CL40-L 26, CL64-L55, CL66-L31-CL69-L65, Figs. 12-26)

- queue entities representing list of tasks to be preformed by agents: Bowman-Amuah discloses a network (listed) network tasks. (CL11-L49-65, CL69-L55-CL73-L65, Figs. 22-35)

- queue commands relating queues entities with agent commands/outputs: Bowman-Amuah discloses a network commands (requirements) and outputs. (CL69-L55-CL73-L65, CL77-L13-CL83-L65, Figs. 22-35, 37-50)

Art Unit: 2128

- command output entities representing agent output commands: Bowman-Amuah discloses a network commands (requirements) and outputs. (CL69-L55-CL73-L65, CL77-L13-CL83-L65, Figs. 22-35, 37-50)

Bowman-Amuah does not explicitly teach the use of intelligent agents executing commands for performing network tasks.

Oracle discloses intelligent agents for performing network tasks. The use of Intelligent agents is well-known to one of ordinary skill in the art as an autonomous process running in the network for providing supporting database service. For example, an intelligent agent can be programmed (commanded) to be responsible for:

- providing local service, calling OS services, interact with targets
- accepting jobs (tasks) or events from other applications
- collecting and queuing results/outputs
- checking events, queuing event reports
- canceling jobs or events (tasks)
- handling network management/protocol

For example, Oracle discloses the elements of the limitations of the claimed invention as follows:

- command entities representing commands to be executed by agents: Oracle discloses the use of intelligent agents in executing commanded network tasks. (Chapters 1: 1-2 to 1-5, 2: 2-2 to 2-23, 3: 3-2 to 3-14)

It would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to modify the teachings Bowman-Amuah relating to

a network data model relating network objects and entities, with the teachings of Oracle relating to the use of intelligent agents for performing network tasks, to realize the claimed invention. An obvious motivation exists since, as referenced in the prior art, the use intelligent agents provides a more efficient method of network control and analysis since agents exhibit independent intelligence, mobility and can operate autonomy and varying degrees of commanded constraints. (see Bigus, Background, for example) The examiner further notes that a "queue", is merely a multi-element data structure from which elements can be removed in the same order which they were inserted (Microsoft Computer Dictionary, 1997), and hence, would have been knowingly used by one skilled in the art as an obvious design choice in implementing the queues features of the claimed invention.

Per dependent claims 9-11: *This group of claims includes limitations relating to queuing, busy signals, tasks, and one-to-many / many-to-one relationships which are control features of the Oracle intelligent agents (see: Chapter 3).*

Allowable Subject Matter

6. *Claims 2-3, 5, 7, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In this case, the prior art does not explicitly disclose or suggest the command mutex entities acting as a locking mechanism preventing agents from executing queues as recited in dependent claims 2, 5, and 8.*

Conclusion

7. ***THIS ACTION IS MADE FINAL.*** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,243,396 issued to Somers discloses intelligent agents for management of network functions.

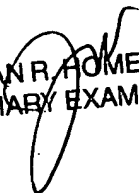
U.S. Patent 6,243,396 issued to Somers discloses intelligent agents performing network tasks.

"The SIFT Information Dissemination System", T. Yan, ACM Transactions on Database Systems, Vol. 24, No. 4, pp. 529-565, December 1999 discloses agents controlling network functions.

"Market-based Resource Control for Mobil Agents", J. Bredin, Autonomous Agents 98', pp. 197-204, ACM 1998 discloses agents controlling network functions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean Homere can be reached at 571-272-3780. The Official Fax Number is: (703) 872-9306

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